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COMMUNICATION ADAPTOR

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INVENTOR-INFORMATION:

NAME	COUNTRY
KOYAMA, MASAKI	N/A
DOI, KANEYUKI	N/A
HASHIMOTO, MASARU	N/A
SUZUKI, YOSHIKO	N/A
NISHIMURA, ATSUHISA	N/A

ASSIGNEE-INFORMATION:

NAME	COUNTRY
MATSUSHITA ELECTRIC WORKS LTD	N/A

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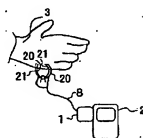
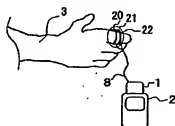
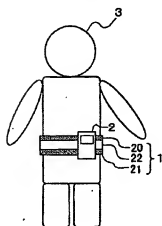
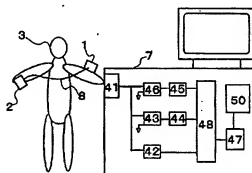
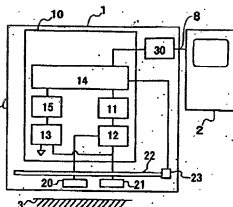
ABSTRACT:

PROBLEM TO BE SOLVED: To provide a data communication system and a data communication adaptor which enhances the convenience of an external terminal that the human body (user) uses.

SOLUTION: Data are transmitted between the first data communication adaptor and the second data communication adaptor, by the first human body and the second human body in contact with each other, being provided with the first data communication adaptor which is equipped with the first interface part, having a function of performing the transmission of the data with the first

external terminal and the second data communication adaptor, which is equipped with the second interface part having a function of performing the transmission of the above data with the second external terminal.

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(72)発明者 鈴木 佳子
大阪府門真市大字門真1048番地松下電工株
式会社内

(72)発明者 西村 篤久
大阪府門真市大字門真1048番地松下電工株
式会社内

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the data telecommunication system and data communication adapter which transmit data between the external terminals which the body (user) uses etc.

[0002]

[Description of the Prior Art] When data exchange or share between Hazama with the external terminal with which other bodies (user) use the data which external terminals, such as a cellular-phone terminal and a pocket form game machine terminal, have conventionally, there are the approach of carrying out direct continuation of the external terminal by the cable, an approach using infrared ray communication, and a method of transmitting using the adapter for cellular-phone terminals.

[0003] Moreover, also when data exchange or share between Hazama of the external terminal and external device which the body (user) uses, an external terminal and an external device are connected by the same approach.

[0004]

[Problem(s) to be Solved by the Invention] However, in order for the body (user) to have exchanged the data of each other external terminal or to have shared as mentioned above, there was a trouble of becoming the cause which must transmit data using the above connection methods, and actuation of an external terminal stops being able to carry out each other external terminal easily for the body (user), and bars improvement in convenience. In the pocket form game machine terminal, such connection had become the cause which bars improvement in the operability of a game especially.

[0005] Moreover, in order to have exchanged information or to have shared between Hazama of the external terminal of the body (user), and an external device, there was a trouble of becoming the cause which must transmit data using the above connection methods, and actuation of an external terminal stops easily similarly being able to carry out an external terminal and the external device which comes to have the function to transmit or receive data for the body (user), and bars improvement in convenience.

[0006] Accomplishing this invention in view of the above-mentioned trouble, the place made into the purpose is to offer the data telecommunication system and data communication adapter which aimed at improvement in the convenience of the external terminal which the body (user) uses.

[0007]

[Means for Solving the Problem] Two electrodes located near the 1st body or a data telecommunication system according to claim 1 is equipped with the 1st external terminal and the 2nd external terminal which come to contain data and it touches the 1st body, The 1st data communication section of transmission of data, or reception which comes to have one of functions at least, The 1st data communication adapter which comes to have the 1st interface section which comes to have the function to transmit said data by Hazama of this 1st data communication section and said 1st external terminal which comes to contain said data, Two electrodes located near the 2nd body or it touches the 2nd body, and the 2nd data communication section of transmission of data, or reception which comes to have one

of functions at least, It comes to prepare the 2nd data communication adapter which comes to have the 2nd interface section which comes to have the function to transmit said data by Hazama of this 2nd data communication section and said 2nd external terminal which comes to contain said data. It is characterized by transmitting data by Hazama of said 1st data communication adapter and said 2nd data communication adapter because said 1st body and said 2nd body contact.

[0008] Moreover, a data telecommunication system according to claim 2 is characterized by said 1st external terminal and said 2nd external terminal being pocket form game machine terminals in invention according to claim 1.

[0009] Moreover, a data telecommunication system according to claim 3 is characterized by said 1st external terminal and said 2nd external terminal being cellular-phone terminals in invention according to claim 1.

[0010] Moreover, a data telecommunication system according to claim 4 Two electrodes located near the body or it has the external terminal which comes to contain data and touches the body, The data communication section of transmission of data, or reception which comes to have one of functions at least, The data communication adapter which comes to have the interface section which comes to have the function to transmit said data by Hazama of this data communication section and said external terminal which comes to contain said data, It is characterized by transmitting data by Hazama of said data communication adapter and said external device because come to prepare the external device which comes to have the function to transmit or receive data and said body contacts said external device.

[0011] Moreover, a data telecommunication system according to claim 5 is characterized by said 1st external terminal and said 2nd external terminal being pocket form game machine terminals in invention according to claim 4.

[0012] Moreover, a data telecommunication system according to claim 6 is characterized by said 1st external terminal and said 2nd external terminal being cellular-phone terminals in invention according to claim 4.

[0013] Moreover, a data communication adapter according to claim 7 Two electrodes located near the body or it touches the body, and the data communication section of transmission of data, or reception which comes to have one of functions at least, It comes to have the interface section which comes to have the function to transmit data by Hazama of this data communication section and the external terminal which comes to contain said data, and this interface section is minded. By Hazama of said external terminal and said data communication section Said data are transmitted, in this data communication section, data conversion is carried out so that said data can be poured on said body, and it is characterized by transmitting said data.

[0014] Moreover, a data communication adapter according to claim 8 is characterized by said external terminal being a pocket form game machine terminal in invention according to claim 7.

[0015] Moreover, a data communication adapter according to claim 9 is characterized by said external terminal being a cellular-phone terminal in invention according to claim 7.

[0016] Moreover, said data communication adapter is characterized by coming to have the wearing implement with which wearing to the wrist of said body or its near is possible with an implement, a data communication adapter according to claim 10 arranges one electrode to the fingertip side of said body between said two electrodes in invention according to claim 7 to 9, and the fingertip of said body arranges the electrode of another side to the opposite side.

[0017] Moreover, a data communication adapter according to claim 11 is characterized by being the band-like wearing implement which said wearing implement arranges so that it may twist around said some of bodies in invention according to claim 10.

[0018] Moreover, a data communication adapter according to claim 12 is characterized by having the wearing detection section which comes to have the function which detects whether said wearing implement is equipped with this wearing implement so that said body may be contacted in invention according to claim 11.

[0019] Moreover, a data communication adapter according to claim 13 is characterized by said wearing implement being the configuration of the ring mold with which said body is equipped in invention

according to claim 10.

[0020] Moreover, a data communication adapter according to claim 14 is a data telecommunication system according to claim 11 characterized by being the configuration of a grip mold with the function with which it equips in invention according to claim 10 so that said wearing implement may sandwich said some of bodies.

[0021] Moreover, a data communication adapter according to claim 15 is characterized by connecting said external terminal and said interface section with a cable in invention according to claim 7 to 14.

[0022] Moreover, a data communication adapter according to claim 16 is characterized by being the structure united with said external terminal in invention according to claim 7 to 14.

[0023] Moreover, a data communication adapter according to claim 17 is characterized by being the structure where said external terminal comes to have a removable cartridge for terminals, and was united with this cartridge for terminals in invention according to claim 7 to 14.

[0024]

[Embodiment of the Invention] Hereafter, the operation gestalt of this invention is explained based on drawing 1 thru/or drawing 3.

[0025] Drawing 1 is the schematic diagram showing the configuration of the data telecommunication system concerning the operation gestalt of this invention, drawing 2 is a block diagram, and drawing 3 is the wearing Fig. of a data communication adapter.

[0026] As shown in drawing 1, a data telecommunication system comes to have the data communication adapters 1 and 4 which contacted the external terminals 2 and 5 and each of the bodies 3 and 6 with two electrodes.

[0027] The external terminal 2 and the data communication adapter 1 are connected by the wire 8 using the interface section 30. In addition, the data communication adapter 1 provides two electrodes 20 and 21 so that the wrist of the body 3 may be contacted, as shown in drawing 3.

[0028] Two electrodes 20 and 21 arranged so that the data communication adapter 1 may touch the body 3, The interface section 30 which carries out data transmission to the external terminal 2, and the modulation section 11 which comes to have the function which modulates data, The recovery section 15 which comes to have the function which restores to data, and the electrical-potential-difference impression section 12 which comes to have the function to impress the electrical potential difference corresponding to the modulating signal modulated by the modulation section 11 between two electrodes 20 and 21, One of the electrodes of the electrical potential difference between two electrodes 20 and 21, or two electrodes, and the electrical-potential-difference detecting element 13 which comes to have the function to detect the electrical potential difference between a circuit and a gland, It comes to have the data communication section 10 which comes to have the control section 14 which comes to have the function which controls said each part, and the band-like wearing implement 22 which equips the body 3 with electrodes 20 and 21.

[0029] Here, in the 1st operation gestalt, the external terminals 2 and 5 are pocket form game machine terminals. Moreover, as shown in drawing 3, the wearing implement 22 consists of elastic materials, and has composition which can be twisted around a wrist. Moreover, the electrode 21 is arranged at the fingertip side of the body 3, and the electrode 20 is arranged with the fingertip of the body 3 in the opposite side. Furthermore, the wearing implement 22 is equipped with the wearing detection section 23, the body 3 equips with it, and it comes to have the function which electrodes 20 and 21 detect the information that the body 3 was contacted, and is transmitted to a control section 14.

[0030] In addition, if a sufficiently large real area of electrodes 20 and 21 is taken, since it is connected with an electrostatic coupling even if separated, the body 3 and electrodes 20 and 21 do not need to touch directly.

[0031] Here, although the data communication adapter 4 omits illustration of a block diagram and data communication adapter wearing-Fig. since it is the same configuration as the same function as the above-mentioned data communication adapter 1, like the case where it is shown in drawing 3, it is formed so that the body 6 may be contacted in two electrodes (not shown), and is connected with the external terminal 5 with a wire 8.

[0032] Although protocol methods, such as RS232C, USB, and IEEE1394, are specifically used, even if other wire communication methods are used for the wire 8 which connects the external terminal 2 and the interface section 30 of the data communication adapter 1, it is easy to be natural [the wire] here. Moreover, it is easy to be natural even if the wireless means which used infrared radiation, an electric wave, etc. for connection between the external terminal 2 and the interface section 30 of the data communication adapter 1 in addition to the connection method by cables, such as a wire 8, performs.

[0033] Below, explanation of operation is shown. Since the external terminal 2 is a pocket form game machine terminal, for example the data of a game etc. Data are transmitted to a control section 14 by the above-mentioned protocol method through the interface section 30 of the data communication adapter 1 from the external terminal 2. Data are changed into the protocol suitable for the communication link which made the body the transmission line in the control section 14. The data changed into the protocol suitable for the communication link which made the body the transmission line impress the electrical potential difference corresponding to the modulating signal which was modulated in the modulation section 11 and modulated by the modulation section 11 in the electrical-potential-difference impression section 12, and are transmitted to the body 3 with electrodes 20 and 21.

[0034] When the body 3 and the body 6 contact by handshaking, data from the data communication adapter 1 It is detected as change of an electrical potential difference by the electrical-potential-difference detecting element (not shown) between two electrodes (not shown) of the data communication adapter 4 through the body 6 from the body 3, it gets over in the recovery section (not shown), and decode of the data received in the control section (not shown) is performed. And the decoded data are transmitted to the external terminal 5 of the body 6 via the interface section (not shown). In addition, data transmission from the external terminal 5 to the external terminal 2 can be performed similarly.

[0035] If it is in this data telecommunication system and a data communication adapter, when exchanging or sharing the data of the external terminal which each of the two bodies uses, improvement in the convenience of an external terminal can be aimed at by using the two bodies as a transmission line.

[0036] in addition , the data communication adapter 1 connected the external terminal 2 with the interface section 30 with the wire 8 , as the 1st operation gestalt be showed in drawing 3 , but only when the data communication adapter 1 be remove , it can connect now with other communication adapter equipments (not shown) and it communicate by making the body into a transmission line , even if it be the configuration that the data communication adapter 1 be attach , it be easy to be natural [the adapter] .

[0037] Moreover, even if the wearing implements 22 are a configuration which swells with air, a configuration whose body (user) moves a pump manually and puts in air, a configuration whose body (user) blows air by the mouth, a configuration which air starts automatically by electric **, and the configuration that it has a pneumatic sensor (not shown) and regulating automatically of the pneumatic pressure is carried out, it is easy to be natural [the implements]. Moreover, even if the wearing implement 22 has composition which can contain the external terminal 2, it is easy to be natural [the implement].

[0038] Moreover, the wire 8 used by the data communication adapter 1 may be a rolling-up type. Moreover, even if the power source of the data communication adapter 1 builds a cell etc. in the data communication adapter 1, a power source is supplied from the external terminal 2. Moreover, even if the data communication adapter 1 is a configuration connected one [at a time] to the external terminal 2, it may be the configuration that two or more external terminals are connected to coincidence.

[0039] Here, it sets in the above-mentioned 1st operation gestalt, and although it is an operation gestalt in case the two bodies exchange or share the data from each other external terminal, an operation gestalt which is exchanged or shared between Hazama of the external terminal and external device which the body uses is shown below as the 2nd operation gestalt of this invention. In addition, since it is simple, explanation of an intersection with the 1st operation gestalt is omitted.

[0040] Hereafter, the 2nd operation gestalt of this invention is explained based on drawing 4 . Drawing 4

is the schematic diagram showing the configuration of the data telecommunication system concerning the 2nd operation gestalt of this invention, and also contains the block diagram of an external device.

[0041] As shown in drawing 4 , a data telecommunication system comes to have the external terminal 2, the data communication adapter 1 by which electrodes 20 and 21 contacted the body 3, and an external device 7.

[0042] The electrode 41 which transmits a signal for the signal which an external device 7 is arranged so that the body 3 may touch, and is outputted from the data communication adapter 1 to reception or the data communication adapter 1, The electrical-potential-difference detecting element 42 for body contact detection which comes to have the function to detect that the body 3 contacted the electrode 41, An electrode 41 and the electrical-potential-difference detecting element 43 which comes to have the function to detect the electrical potential difference between a circuit and a gland, The recovery section 44 which comes to have the function which restores to the voltage signal detected by the electrical-potential-difference detecting element 43, The modulation section 45 which comes to have the function which modulates the data transmitted from the below-mentioned information equipment 50, Said electrode 41 and the electrical-potential-difference impression section 46 which comes to have the function to impress an electrical potential difference between circuit glands, It comes to have the interface section 47 which carries out data transmission to the information equipment 50 using the signal transmitted and received, the control section 48 which comes to have the function which controls said each part, and information equipment 50 which manages the data transmitted and received.

[0043] Below, explanation of operation is shown. If the body 3 contacts the electrode 41 of an external device 7, it will detect contact of the body 3 in the electrical-potential-difference detecting element 42 for body contact detection, and will receive the signal of the external terminal 2 of the body 3 via the data communication adapter 1 of the body 3, the body 3, and an electrode 41 using the electrical-potential-difference detecting element 43 and the recovery section 44. In addition, the received data are transmitted to information equipment 50 via the interface section 47 from a control section 48.

[0044] Moreover, conversely, if the body 3 contacts the electrode 41 of an external device 7, contact of the body 3 can be detected in the electrical-potential-difference detecting element 42 for body contact detection, and a control section 48 can also perform actuation of transmitting to a user's external terminal 2 via an electrode 41, the body 3, and the data communication adapter 1 using the modulation section 45 and the electrical-potential-difference impression section 46. In addition, the data to transmit are transmitted to a control section 48 via the interface section 47 from information equipment 50.

[0045] If it is in this data telecommunication system and a data communication adapter, since the external terminal which the information equipment and the body of an external device use carries out data communication via the body, improvement in the convenience of an external terminal can be aimed at.

[0046] In addition, contact detector styles, such as a carbon button, are also only easy to be natural [the electrical-potential-difference detecting element 42 for body contact detection]. Moreover, a usual personal computer (not shown) and the usual signal processor (not shown) are sufficient as an external device 7, and it is easy to be natural [an external device] even if it has communication facility, such as an Internet connectivity.

[0047] Here, an external device 7 does not necessarily need to be a configuration like the same 2nd operation gestalt, and as long as it realizes the same function, what kind of configuration is sufficient as it.

[0048] Next, operation carrying of others of the wearing implement of the data communication adapter of the 1st operation gestalt and the 2nd operation gestalt is shown below as the 3rd operation gestalt thru/or the 5th operation gestalt of this invention. In addition, since it is simple, explanation of an intersection with the 1st operation gestalt and the 2nd operation gestalt is omitted.

[0049] Hereafter, the 3rd operation gestalt of this invention is explained based on drawing 5 . Drawing 5 is the wearing Fig. of the data communication adapter concerning the 3rd operation gestalt of this invention.

[0050] It is ***** arranged so that it may be the configuration that the data communication adapter 1 is

united with the external terminal 2 in the 3rd operation gestalt and the lumbar part of the body 3 can be equipped with the wearing implement 22 like a belt as shown in drawing 5. In addition, it is easy to be natural even if it is the configuration that a wrist, an arm, etc. of not only the lumbar part but the body 3 are equipped with the external terminal 2.

[0051] If it is in this data telecommunication system and a data communication adapter, since the information equipment of an external device and the external terminal of the body carry out data communication via the body, improvement in the convenience of the external terminal which the body uses can be aimed at.

[0052] In addition, the wearing implement 22 may have composition like clothes, or may have composition which wearing implement 22 selves can remove, and may be the configuration that waterproofing etc. was performed so that wash etc. might be possible, in the configuration which can be removed especially.

[0053] Hereafter, the 4th operation gestalt of this invention is explained based on drawing 6. Drawing 6 is the wearing Fig. of the data communication adapter concerning the 4th operation gestalt of this invention.

[0054] As shown in drawing 6, in the 4th operation gestalt, the wearing implement 22 is carrying out the configuration of a ring mold, and is a configuration with which the fingertip of the body 3 is equipped. Moreover, when the external terminal 2 uses the removable cartridge for terminals, the data communication adapter 1 is united with the cartridge for terminals, and electrodes 20 and 21 are the configurations of separating with a wire 8 and connecting.

[0055] In addition, even if the cartridge for terminals is the configuration that the data communication adapter which comes to have the function in which applications, such as a game of an external terminal, are offered, and fitted this application is offered, it is easy to be natural [a cartridge].

[0056] If it is in this data telecommunication system and a data communication adapter, since the wearing implement is carrying out the configuration of a ring mold, wearing of a data communication adapter is easy. Moreover, since an external terminal has a removable cartridge for terminals and it was made united [the cartridge for terminals and a data communication adapter], the optimal data communication adapter for the cartridge for terminals can be offered.

[0057] In addition, even if the data communication adapter 1 is the configuration which is built in for every cartridge for terminals, it is easy to be natural [the adapter].

[0058] Hereafter, the 5th operation gestalt of this invention is explained based on drawing 7. Drawing 7 is the wearing Fig. of the data communication adapter concerning the 5th operation gestalt of this invention.

[0059] As shown in drawing 7, in the 5th operation gestalt, the wearing implement 22 is carrying out the configuration of a clip mold, and is a configuration with which it equips so that the shell and palm of a hand of the body 3 may be pinched.

[0060] If it is in this data telecommunication system and a data communication adapter, since the wearing implement is carrying out the configuration of a clip mold, wearing of a data communication adapter is easy.

[0061] Here, in the 1st operation gestalt thru/or the 5th operation gestalt, although the case where an external terminal was a pocket form game machine terminal was shown, the application of a pocket form game machine terminal may be constituted so that the data of a game may be exchanged among users in this case, and it is exchanged in the data of a game by Hazama with an external device. In addition, data may be the specific information and the specific character itself about the character, and it is easy to be natural [data] even if they are data used in other games.

[0062] Moreover, even if those with two or more sets and a user make [an external device] the data exchange separate at Hazama with each external device, it is easy to be natural [the data telecommunication system of this invention / a user]. Moreover, it is easy to be natural, even if a user's terminal records the hysteresis in which the data telecommunication system of this invention carried out the data exchange to the external device and it is used for the check of the checkpoint of attractions, such as orienteering in a theme park etc., etc.

[0063] Moreover, if the data telecommunication system of this invention is not transmitted using the communication link to which the data of the use hysteresis of an external terminal are exchanged among specific users, for example, the data of the use hysteresis a child's external terminal consider the body as a transmission line at a guardian's external terminal, you may be the configuration that it becomes impossible to use a child's external terminal. Moreover, you may be the configuration which can apply a limit of the utilization time a child's game equipment, and a limit of a utilization-time band to a guardian side.

[0064] Moreover, in the data telecommunication system of this invention, when used by game waging war between users etc., if the communication link which makes the body a transmission line is not carried out after game waging war, it is constituted so that the waging-war result of a game may not become effective, and you may become the mechanism in which friends are made after pitching waging-war persons against each other. Moreover, after game waging war, child's guardian's data can also be exchanged for coincidence and guardians can acquire now data, such as each other telephone number.

[0065] Moreover, two or more users are equipped with the data communication adapter 1, and users' data communication adapter communicates in the shape of a cascade (ring formed LAN), and A specific data communication adapter plays a role (star formed LAN) like a hub. The communication link of two or more data communication adapters is controlled, and communications control (Internet mold) like a router which carries out pons delivery of two or more users' lumps is performed.

[0066] Moreover, the data communication adapter 1 may communicate using protocols, such as TCP/IP, and the other protocol may be used for it. Each data communication adapter holds ID of a proper, and can distinguish each other now.

[0067] Moreover, the data communication adapters 1 may be a configuration which communicates only as a specific partner, a configuration which performs the enciphered communication link, a configuration which leaves communicative hysteresis, a configuration it becomes impossible to use after fixed time amount if it does not communicate with a specific partner, and the configuration that only a specific user can use only a specific terminal.

[0068] In the 1st operation gestalt thru/or the 5th operation gestalt, although an external terminal is a pocket form game machine terminal, it is easy to be natural [a terminal] here with a cellular-phone terminal or other information equipments.

[0069] In addition, this invention is not limited to the above-mentioned data telecommunication system and above-mentioned data communication adapter of an operation gestalt, it is the range of the contents indicated to the claim of a claim, various kinds of deformation is possible, and this invention contains these all.

[0070]

[Effect of the Invention] As mentioned above, if it is in invention of the data telecommunication system according to claim 1 concerning this invention Two electrodes located near the 1st body or it has the 1st external terminal and the 2nd external terminal which come to contain data and touches the 1st body, The 1st data communication section of transmission of data, or reception which comes to have one of functions at least, The 1st data communication adapter which comes to have the 1st interface section which comes to have the function to transmit said data by Hazama of this 1st data communication section and said 1st external terminal which comes to contain said data, Two electrodes located near the 2nd body or it touches the 2nd body, and the 2nd data communication section of transmission of data, or reception which comes to have one of functions at least, It comes to prepare the 2nd data communication adapter which comes to have the 2nd interface section which comes to have the function to transmit said data by Hazama of this 2nd data communication section and said 2nd external terminal which comes to contain said data. It is what transmitted data by Hazama of said 1st data communication adapter and said 2nd data communication adapter because said 1st body and said 2nd body contact. When exchanging or sharing the data of the external terminal which each of said 1st body and said 2nd body uses, the effectiveness that the convenience of the external terminal which a user uses improves is done so by using the two bodies as a transmission line.

[0071] Moreover, if it is in invention of a data telecommunication system according to claim 2, in

invention according to claim 1, it is what said 1st external terminal and said 2nd external terminal carried out as [be / it / a pocket form game machine terminal], and it becomes possible to perform data communication of the game of this pocket form game machine terminal via the body, and the effectiveness that the convenience of the pocket form game machine terminal which a user uses improves is done so.

[0072] Moreover, if it is in invention of a data telecommunication system according to claim 3, in invention according to claim 1, it is what said 1st external terminal and said 2nd external terminal carried out as [be / it / a cellular-phone terminal], and a body course is also enabled to perform data communication of a user's cellular-phone terminal, and the effectiveness that the convenience of the cellular-phone terminal which a user uses improves is done so.

[0073] Moreover, if it is in invention of a data telecommunication system according to claim 4 Two electrodes located near the body or it has the external terminal which comes to contain data and touches the body, The data communication section of transmission of data, or reception which comes to have one of functions at least, The data communication adapter which comes to have the interface section which comes to have the function to transmit said data by Hazama of this data communication section and said external terminal which comes to contain said data, Because come to prepare the external device which comes to have the function to transmit or receive data and said body contacts said external device It is what transmitted data by Hazama of said data communication adapter and said external device, and the data communication of a between [the external terminal which said body uses, and an external device] is enabled to carry out via said body, and the effectiveness that a user's convenience of an external terminal improves is done so.

[0074] Moreover, if it is in invention of a data telecommunication system according to claim 5, in invention according to claim 4, it is what said 1st external terminal and said 2nd external terminal carried out as [be / it / a pocket form game machine terminal], and it becomes possible to perform data communication of the game of this pocket form game machine terminal via the body, and the effectiveness that the convenience of the pocket form game machine terminal which a user uses improves is done so.

[0075] Moreover, if it is in invention of a data telecommunication system according to claim 6, in invention according to claim 4, it is what said 1st external terminal and said 2nd external terminal carried out as [be / it / a cellular-phone terminal], and a body course is also enabled to perform data communication of a user's cellular-phone terminal, and the effectiveness that the convenience of the cellular-phone terminal which a user uses improves is done so.

[0076] Moreover, if it is in invention of a data communication adapter according to claim 7 Two electrodes located near the body or it touches the body, and the data communication section of transmission of data, or reception which comes to have one of functions at least, It comes to have the interface section which comes to have the function to transmit data by Hazama of this data communication section and the external terminal which comes to contain said data, and this interface section is minded. By Hazama of said external terminal and said data communication section It is what transmitted said data, carries out data conversion in this data communication section so that said data can be poured on said body, and transmitted said data. About the connection at the time of communicating with the external terminal or external device which other users use, they are not means of communications, such as the conventional cable connection, infrared ray communication, and radio. It becomes possible to perform data communication by the means of communications of communicating considering said body as a transmission line, and the effectiveness that the convenience of the external terminal which a user uses improves is done so.

[0077] Moreover, if it is in invention of a data communication adapter according to claim 8, in invention according to claim 7, it is what said external terminal carried out as [be / it / a pocket form game machine terminal], and the effectiveness that the convenience of the pocket form game machine terminal which a user uses improves is done so.

[0078] Moreover, if it is in invention of a data communication adapter according to claim 9, in invention according to claim 7, it is what said external terminal carried out as [be / it / a cellular-phone terminal],

and the effectiveness that the convenience of the cellular-phone terminal which a user uses improves is done so.

[0079] Moreover, if it is in invention of a data communication adapter according to claim 10 In invention according to claim 7 to 9 said data communication adapter It is the thing has the wearing implement with which wearing to the wrist of said body or its near is possible with an implement, one electrode is arranged to the fingertip side of said body between said two electrodes, and the fingertip of said body arranges the electrode of another side to the opposite side, and it was made to become. Since the input signal which said external terminal or said external device detects can be enlarged in case it communicates with the external terminal or external device which other users use, the effectiveness that data communication is performed correctly is done so.

[0080] Moreover, if it is in invention of a data communication adapter according to claim 11, in invention according to claim 10, said wearing implement is what was carried out as [be / it / the band-like wearing implement arranged so that it may twist around said some of bodies], and does so the effectiveness that wearing of a data communication adapter becomes easy.

[0081] Moreover, if it is in invention of a data communication adapter according to claim 12 In invention according to claim 11 to said wearing implement It is the thing equipped with the wearing detection section which comes to have the function which detects whether it is equipped with this wearing implement so that said body may be contacted. It becomes possible to check that wearing of a data communication adapter is made correctly, and the effectiveness that the communication link which makes the body a transmission line comes to be performed more to accuracy is done so.

[0082] Moreover, if it is in invention of a data communication adapter according to claim 13, in invention according to claim 10, said wearing implement is what was carried out as [be / it / the configuration of the ring mold with which said body is equipped], and does so the effectiveness that wearing of a data communication adapter becomes easy.

[0083] Moreover, if it is in invention of a data communication adapter according to claim 14, in invention according to claim 10, said wearing implement is what was carried out as [be / it / the configuration of a grip mold with the function with which it equips so that said some of bodies may be inserted], and does so the effectiveness that wearing of a data communication adapter becomes easy.

[0084] Moreover, if it is in invention of a data communication adapter according to claim 15, in invention according to claim 7 to 14, it is what connected said external terminal and said interface section with the cable, and the effectiveness that offer of the data communication adapter which is not influenced by the configuration of an external terminal etc. is attained is done so.

[0085] Moreover, if it is in invention of a data communication adapter according to claim 16, in invention according to claim 7 to 14, it is what was carried out as [be / it / the structure united with said external terminal], and the effectiveness that improvement in the convenience in actuation of an external terminal etc. is attained is done so.

[0086] Moreover, if it is in invention of a data communication adapter according to claim 17, in invention according to claim 7 to 14, it is what was carried out as [be / it / the structure where said external terminal comes to have a removable cartridge for terminals, and was united with this cartridge for terminals], and the effectiveness that offer of the optimal data communication adapter for said cartridge for terminals is attained is done so.

[Translation done.]